"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACC NR: AT6033364 SOURCE CODE: UR/3118/66/000/009/0003/0017

AUTHOR: Bagrov, N. A.; Myakisheva, N. N.

ORG: none

TITLE: Some anomalies of average monthly air temperatures

SOURCE: Mirovoy meteorologicheskiy tsentr. Trudy, no. 9, 1966. Statisticheskiye svoystva meteorologicheskikh poley (Statistical properties of meteorological fields), 3-17

TOPIC TAGS: air temperature, temperature measurement, temperature variation

ABSTRACT: A specific indicator for the anomaly of average monthly air temperatures is proposed. Numerical values for the criterion of anomaly

$$K=\frac{1}{N}\sum_{n=1}^{N}\frac{A_n^2}{\sigma_n^2}, \qquad (1)$$

are presented for 1901--1960, A_n being the anomaly and σ_n the dispersion of anomalies in some points distributed over a given area. The data are derived from 40 observation points in the European and Siberian Soviet Union for the months of July and January. The specific values of the covariational matrix, their information value, and the first five eigenvectors have been derived by machine computation and tabu-

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ACC NR: AT6033364

lated or presented in graphical form. The coefficients A_1, A_2... of the natural components in the distribution field are shown to represent field characteristics. The extension of the study and correlation of results for individual months are suggested. Orig. art. has: 7 formulas, 2 tables, and 13 figures.

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 007

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACC NR: AT6033367 (N) SOURCE CODE: UR/3118/66/000/009/0061/0069

AUTHOR: Bagrov, N. A.

ORG: none

TITLE: On the statistic properties of some forecast evaluations

SOURCE: Mirovoy meteorologicheskiy tsentr. Trudy, no. 9, 1966. Statisticheskiye svoystva meteorologicheskikh poley (Statistical properties of meteorological fields), 61-69

TOPIC TAGS: long range weather forecasting, statistic analysis, weather map

ABSTRACT: The stastistic properties of known definitions of the quality of long range forecasts are analyzed, i.e.,

$$\rho = \frac{n_+ - n_-}{n}, \quad (1)$$

n being the number of points nearly uniformly distributed in the region, n_+ and n_- the number of points where the forecast was correct or incorrect, respectively; and

$$Q = \frac{1}{n} \sum \frac{(\Lambda_\phi - \Lambda_n)^2}{\sigma^2}, \quad (2)$$

σ2 being the dispersion of actual anomalies Λϕ and summation involving all points of

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACC NR: AT6033367

the network in the forecast area. The average and dispersive distribution parameters ρ and Q are shown to be random values at independent input data and the parameters of real distribution are derived. Orig. art. has: 16 formulas.

SUB CODE: 08, 12/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

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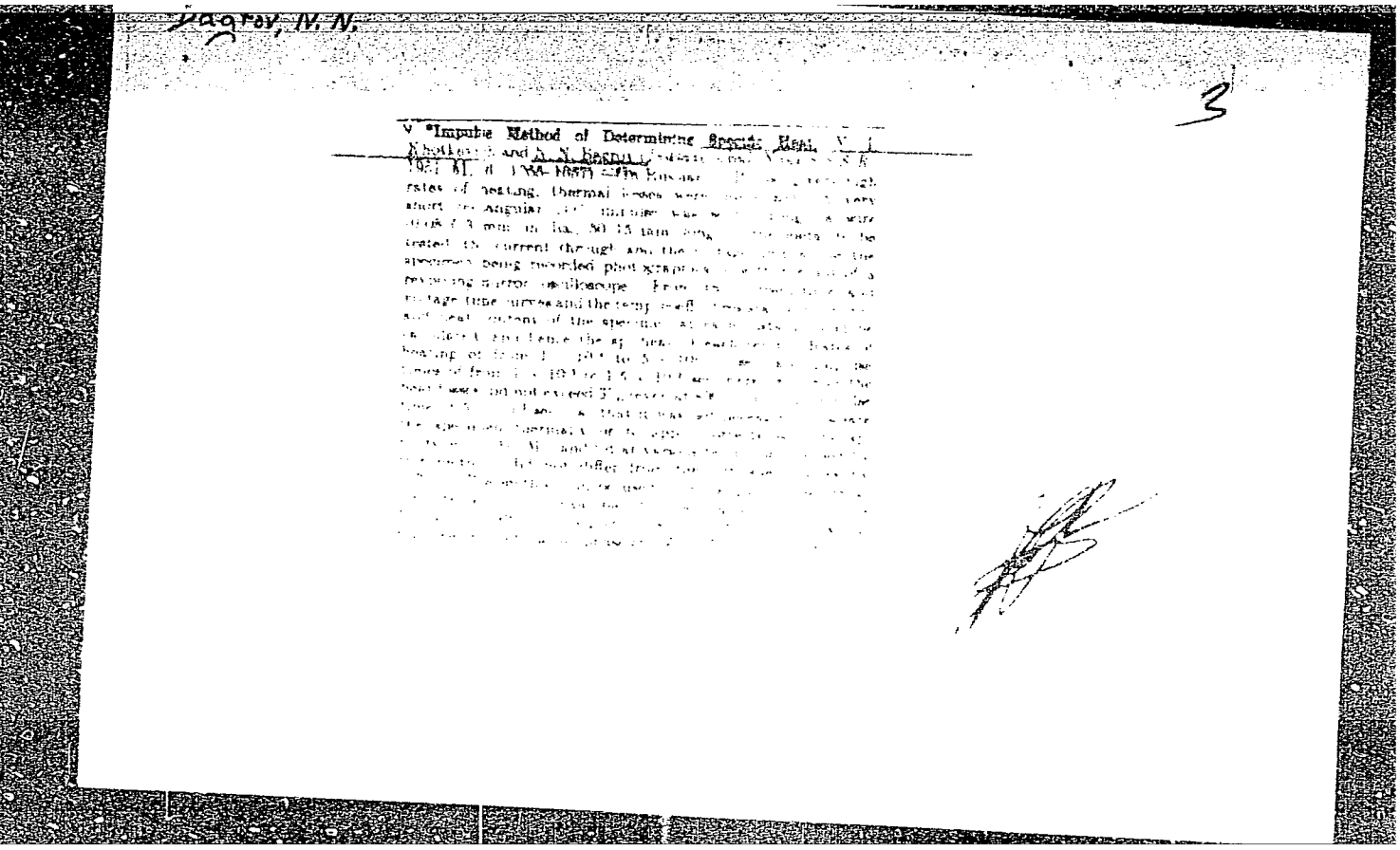

Bagrov, N. N.

3

V "Impulse Method of Determining Specific Heat, V. I. Khotkevich and N. N. Bagrov [illegible] 1951, [illegible] (1955-1957) — In Russian [illegible] rates of heating, thermal losses were [illegible] very short rectangular [illegible] impulse was [illegible] 0.08 ± 3 mm in dia., 50-15 mm long [illegible] tested [illegible] current through and the [illegible] the specimen being recorded photographically [illegible] reversing mirror oscilloscope. From [illegible] voltage time curves and the temp. coeff. [illegible] heat content of the specimen [illegible] heating of from [illegible] to 5 [illegible] times of from [illegible] to 1.5 [illegible] heat losses did not exceed 3% [illegible] that it was [illegible] the specimen thermally [illegible] and [illegible] differ from [illegible]

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, N. N. ; Khotkevich, V. I.

"Use of the Oscillograph for Calorimetric Investigations"
Uch. Zap. Khar'kovsk. Un-ta, T. 49, Tr. Fiz Otd. Fiz.-Matem. Fak., No 4, 1953, 155-159

Describes apparatus and method for measuring the heat capacity of fine wire samples of Cu, W, Mo, and Cd. A rectangular pulse of direct currrent is applied to the sample and the strength and duration of the current then recorded on the oscillograph. This data, in conjunction with temperature coefficients of resistance for the material, is used to calculate the heat capacity. (RZhKhim, No 3, 1955)

SO: Sum-No 845, 7 Mar 56

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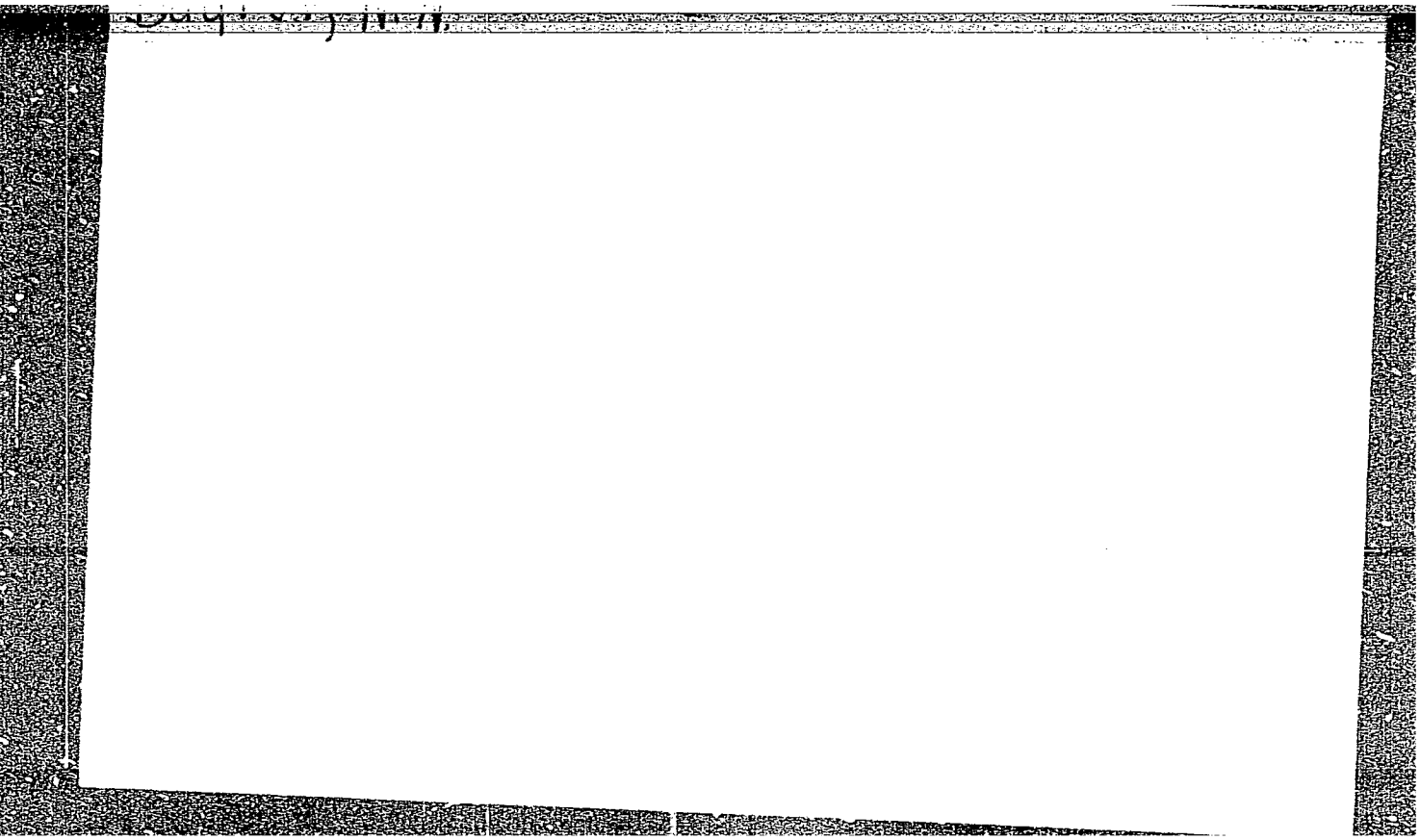

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, N. N.

USSR/ Physical Chemistry _ Liquids and amorphous bodies. Gases B-6

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11069

Author : Bagrov N.N., Verkin B.I., Dolgopolov D.G.
Title : Determination of Diffusion Coefficient in Liquid by the Method of Saturation from Gaseous Phase

Orig Pub : Zh. fiz. khimii, 1956, 30, No 2, 476-478

Abstract : Description of the method of determining diffusion coefficient in liquid by saturating it with vapor of another substance. There are proposed the formulas:

$$\Delta Q/Q = C_0 (m/M)[1 - 8/\pi^2 \exp(-\pi^2 D t/l^2)] \quad (1)$$

$$\Delta Q/Q = 4C_0 (m/M)\{1/\pi (\sqrt{\pi D t}/l)[1/2 - \exp(-l^2/Dt)] + 1 - \Phi(l/\sqrt{Dt})\} \quad (2)$$

wherein $\Delta Q/Q$ is the relative increase in weight of the liquid as a result of diffusion, D --diffusion coefficient, c_0 --concentration of the saturated solution of vapor in liquid, l --depth of the liquid layer, M and m --mass of the atoms of solvent and solute, t --time. Formula (1) related to the instance $\pi Dt > l^2$ (long duration of experiment or shallow depth of liquid layer), formula (2) to the instance $\pi Dt < l^2$. The method consists in plotting the experimental curve $\Delta Q/Q = f(1/l)$, determining the tangent

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

USSR/ Physical Chemistry - Liquids and amorphous bodies. Gases B-6

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11069

of the angle of slope ($l/l < 1$) and lenght of the sector which it cuts off on the axis of ordinates ($l/l > 1$), calculating the ratio of these two quantities, which equals $2\sqrt{Dx/\pi}$, from which the quantity D is then calculated. The proposed method was checked by the authors with the system ethyl alcohol vapor - octoil, and showed a good agreement between experimental and calculated values.

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

Bagrov, N.N.

USSR / Liquids.

D-8

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9080

Author : Bagrov, N.N., Verkin, B.I., Dolgopolov, D.G.
Title : Determination of the Coefficient of Diffusion in a Liquid by the Method of Saturation from the Gas Phase.

Orig Pub : Zh. Fiz. khimii, 1956, 30, No 2, 476-478

Abstract : The solution of the diffusion equation leads the authors to a method for determining the coefficient of diffusion D in a liquid using a plot of $\Delta Q/q$ vs. $1/\ell\ell(\Delta Q/Q$ is the relative increase in the weight of the liquid when the vapor of substance A diffuses into an initially pure liquid B, and ℓ is the depth of the layer liquid). The method was verified experimentally with an example of the diffusion of alcohol in octoil ($D = 1.3 \times 10^{-5}$ cm^2/sec at room temperature.

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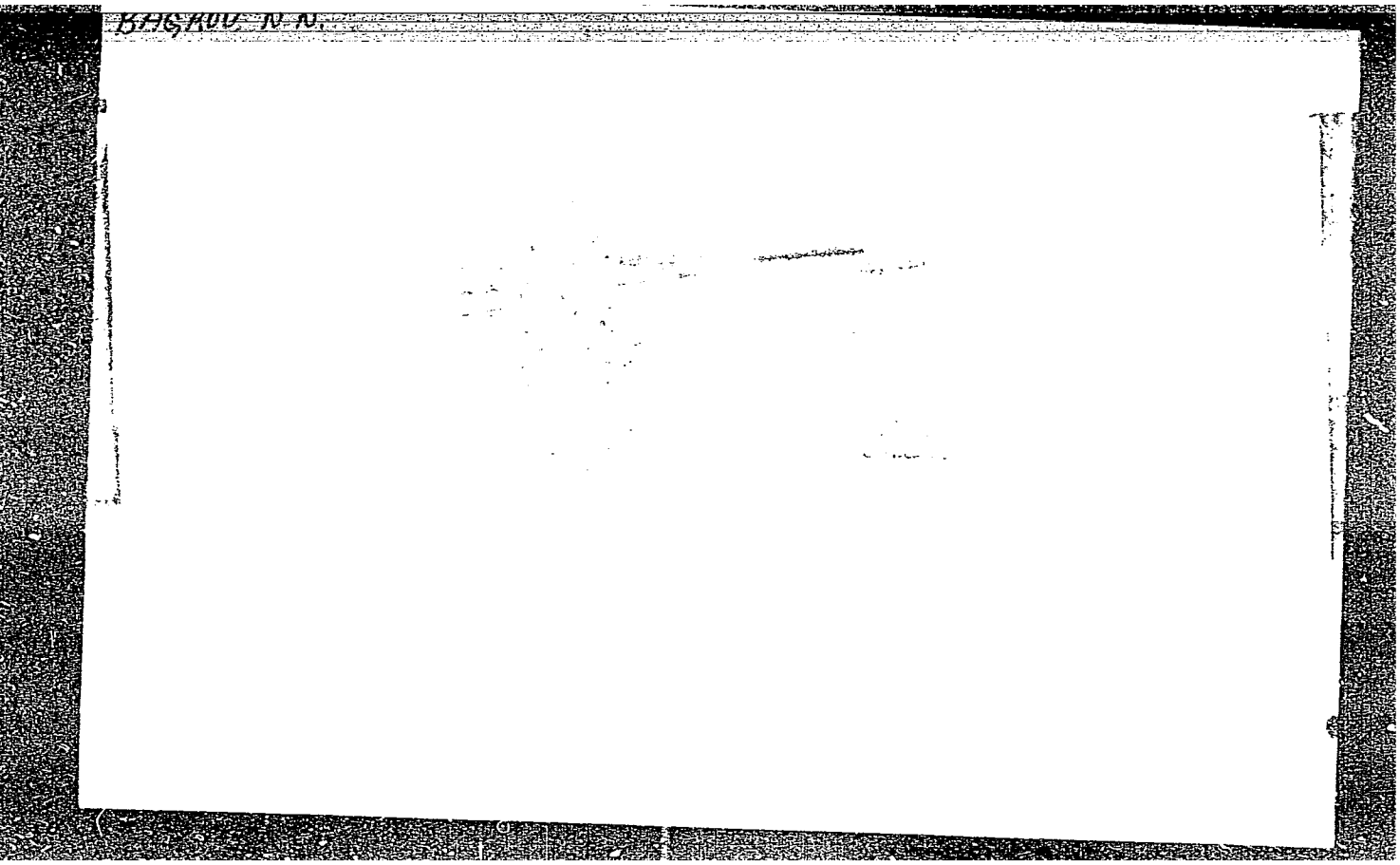

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, N.N. [Bahrov, M.M.]

Measuring the diffusion coefficient of nitrogen in liquid oxygen. Ukr. fiz. zhur. 6 no.4:486-489 Jl-Ag '61. (MIRA 14:9)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo i Fiziko-tekhnicheskiy institut nizkikh temperatur AN USSR, g. Khar'kov.

(Liquid oxygen) (Nitrogen) (Diffusion)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

DOLGOPOLOV, D.G. [Dolhopolov, D.H.]; BAGROV, N.N. [Bahrov, M.M.]

Measuring the diffusion coefficient in liquids by the method of saturation from the gaseous phase. Ukr. fiz. zhur. 6 no.4: 490-496 Jl-Ag '61. (MIRA 14:9)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo i Fiziko-tekhnicheskiy institut nizkikh temperatur AN USSR, g. Khar'kov.

(Diffusion)

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78197
SOV/133-60-3-22/24

AUTHORS: Bagrov, O. N., Khramov, B. N. (Engineers)

TITLE: Steam Installation for Dehydration of Mazut

PERIODICAL: Stal, 1960, V. 20, Nr 3, pp 283-284 (USSR)

ABSTRACT: In 1957 an installation for dehydration of Mazut (fuel oil) was put into operation at the Severskiy Plant imeni F. A. Merkulov (Severskiy zavod imeni F. A. Merkulova). Prior to dehydration mazut was cleaned from mechanical impurities in settling tanks and in screen filters, as well as in laminated filters at open hearth furnaces. The installation is shown in Fig. 1.

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

Steam Installation for Dehydration of Mazut

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SOV/133-60-3-22/24

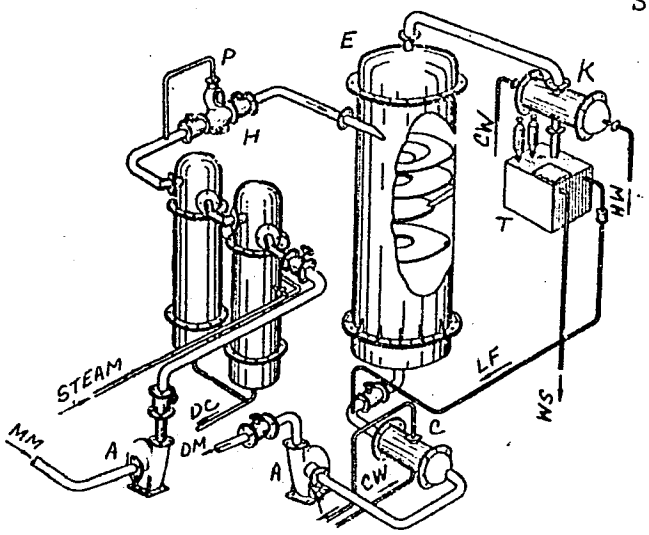

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Fig. 1. (See Card 3/4 for caption)

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Fig. 1. Schematic diagram of a steam installation for dehydration of mazut. HW - hot water; CW - cold water; WS - discharge of water into sewers; LF - transfer of light fractions; MM - moist mazut; DM - dry mazut; DC - discharge of condensate; C - cooler; K - surface condenser; T - separating tank; E - evaporator; P - pressure gage; H - heater; A - pump.

The device has the following technical characteristics: productivity 7.0 - 15.0 t/hr; average moisture of mazut, %: initial 9, final 1; temperature of mazut C: initial 50-60, final 90; parameters of steam: temperature, 220° C, pressure 5 atm, steam consumption 0.8-2.0 t/hr; operating experience: The installation is dependable in the operation producing mazut with 0.2-1.0% moisture content. It does not require frequent stops for cleaning the heating surfaces. It can be installed in the shop wherever steam can be supplied. Finally, it costs less than an installation with a cracking heater. There are

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Steam Installation for Dehydration of Mazut

78197
SOV/133-60-3-22/24

2 figures; and 4 Soviet references.

ASSOCIATION: Severskiy Metallurgical Plant (Severskiy metallurgicheskiy zavod)

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

KAPLUN, V.M.; BAGROV, O.N.

Purification of industrial sewage at the Severski Metallurgical Plant. Stal' 21 no.10:959 O '61. (MIRA 14:10)

1. Sverdlovskiy sovnarkhoz.
(Polevskoy--Metallurgical plants--Water supply)
(Sewage--Purification)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, O.N.; BOROVIK, Z.G.

Accelerate preparations for conversion to gas. Stroi. truboprov. 8 no.3:4-5 Mr '63. (MIRA 16:5)

1. Sredne-Ural'skiy sovet narodnogo khozyaystva, Sverdlovsk. (Gas, Natural)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, G.N., kand.

Industrial power resources of central Urals. Prom. energ. 20 no.8:2-4 Ag '65. (MIRA 18:8)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

KHRENOV, N., elektromonter; BAGROV, V., elektromonter

Simple device for switching on electric lighting. Zhil.-kom.khoz. 11 no.6:15-16 Je '61. (MIRA 14:7)
(Electric switchgear) (Automatic timers)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ZAKHAROV, S., vitse-admiral; BAGROV, V., kapitan 1-go ranga

Victory of the Soviet Armed Forces in the Far East. Komm. Vooruzh. Sil 46 no.15:28-35 Ag '65. (MIRA 18:9)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AP4002278 S/0139/63/000/005/0127/0139

AUTHORS: Ternov, I. M.; Bagrov, V. G.; Rzayev, R. A.

TITLE: Polarization properties of emission of spin oriented fast electrons in a magnetic field

SOURCE: IVUZ. Fizika, no. 5, 1963, 127-139

TOPIC TAGS: relativistic electron emission, extreme ultrarelativistic region, linear emission, circular emission, spin oriented fast electron, fast electron polarization, fast electron emission, polarization property

ABSTRACT: The polarization properties of relativistic electron emission in a homogeneous magnetic field including electron and photon spin correlation have been investigated. The relativistic motion of the electron is obtained by solving the Dirac equation

$$i\hbar\frac{\partial\psi}{\partial t}=\{c(\alpha P)+\rho_3 mc^2\}\psi,$$

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where

$$(\sigma P)\psi = \sigma\left(-i\hbar\nabla + \frac{e}{c}A\right)\psi = \hbar k\zeta\psi$$

Expressions are obtained describing linear and angular polarization emissions valid for electron energies $E \ll E_{1/2}$, as well as for $E \gg E_{1/2}$ thus including in the analysis extreme ultrarelativistic region. "The author is grateful to Professor A. A. Sokolov and to his colleague B. K. Kerimov." Orig. art. has: 80 equations.

ASSOCIATION: Moskovskiy gosuniversitet imeni, M. V. Lomonosova (Moscow State University)

SUBMITTED: 14Jul62 DATE ACQ: 02Dec63 ENCL: 00

SUB CODE: PH NO REF SOV: 012 OTHER: 000

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AP4012565 S/0056/64/046/001/0374/0382

AUTHORS: Ternov, I. M.; Bagrov, V. G.; Rzayev, R. A.

TITLE: Radiation of fast electrons with oriented spins in a magnetic field

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 374-382

TOPIC TAGS: electron radiation, fast electron radiation, relativistic electron radiation, electron with oriented spin, electron in magnetic field, electron polarized radiation, electron radiation polarization, electron spontaneous emission, spin dependence of polarization

ABSTRACT: In view of the high degree of polarization of the radiation of fast electrons moving in a magnetic field, the authors investigate the radiation properties of relativistic electrons in a magnetic field, using quantum theory methods and allowing for the

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ACCESSION NR: AP4012565

polarization of the electron spin. Wave functions are derived for an electron moving in a homogeneous and constant magnetic field. The spontaneous emission and the intensity of the polarized radiation are evaluated for polarization along the direction of motion and polarization along the magnetic field vector. In the former case the change in electron spin polarization is independent on the direction of the spin at the initial instant of time. In the latter case the radiation component does depend on the initial spin orientation, and the dependence is included in terms proportional to the first power of Planck's constant. "The authors are grateful to Prof. A. A. Sokolov and Yu. M. Loskutov for participating in a discussion of the results." Orig. art. has: 60 formulas.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet (Moscow State University)

SUBMITTED: 04Jul63 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 008 OTHER: 003

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APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AP4043800 S/0188/64/000/004/0062/0070

AUTHOR: Ternov, I. M., Bagrov, V. G., Rzayev, R. A.

TITLE: Influence of synchrotron radiation of electrons on their spin orientation

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1964, 62-70

TOPIC TAGS: electron, magnetic field, synchrotron radiation, electron spin, electron spin polarization, electron spin orientation

ABSTRACT: The influence of an electromagnetic field on the movement of a polarized beam of electrons generally leads to a change in both the momentum vector of the particles and their spin orientation. In the case of a magnetic field which is uniform in space and constant in time this change occurs in such a way that the state of polarization of the electron spin, determined relative to the direction of motion of the electron and relative to the direction of the external magnetic field, does not change with time. During motion in a magnetic field an electron becomes a source of extremely strong electromagnetic radiation which can lead to a change in the orientation of electron spin. In this article the author considers the problem of the behavior of electron spin during synchrotron radiation. Two states of polarization are investigated: relative to the direction of

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motion (longitudinal) and relative to the direction of the magnetic field (for practical purposes transverse). Expressions are derived for the wave functions, followed by an analysis of the probability of spontaneous transitions. In his exposition of the formulas characterizing spectral distribution, the author cites

$$\omega = \frac{\sqrt{3}}{4\pi}\frac{e^2}{\hbar c}\frac{c}{R}\frac{1}{\sqrt{\varepsilon_0}}\int_0^\infty \frac{dy}{(1+\xi y)^2}F, \qquad (1)$$

where F is dependent on the state of polarization of the electron spin. The state of longitudinal polarization is

$$\vec{F^{\rightarrow}} = [2(1+\xi y)+\xi^2 y^2]\int_0^\infty K_{1/3}(x)\,dx, \qquad (2)$$

$$\vec{F^{\leftarrow}} = \xi^2 y^2\left(2K_{1/3}(y) - \int_y^\infty K_{1/3}(x)\,dx\right). \qquad (3)$$

where arrows indicate transitions corresponding to spin flipping ($\rightleftarrows$) and without change in spin orientation ($\rightarrow$). These formulas show that transition probability is generally independent of the initial state of polarization. In the case $E \leqslant E1/2$ (that is, when $\xi \ll 1$),

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spin flipping is expressed in terms proportional to the square of the Planck constant $\hbar^2$. The state of polarization along a magnetic field is

$$F^{\uparrow\uparrow} = 2(1+\xi y)\int_y^\infty (K_{\gamma_4}(x))\,dx + \xi^2 y^2 K_{\gamma_4}(y) - \zeta(2+\xi y)\,\xi y K_{\gamma_4}(y), \tag{4}$$

$$F^{\downarrow\uparrow} = \xi^2 y^2 (K_{\gamma_4}(y) + \zeta K_{\gamma_4}(y)). \tag{5}$$

where the arrows indicate retention of polarization (↑↑) and change of polarization (↓↑) (spin flipping). The results differ appreciably from the preceding case: dependence on initial spin state enters into both expressions. Limiting the problem to the region of energies $E \ll E\ 1/2$, when it can be assumed that $\zeta \ll 1$, the authors find the integral value for transition probability. It is shown that the integral transition probability without spin flipping is identical for both longitudinal polarization and polarization along the field

$$w^{\uparrow\uparrow} = w^{\rightrightarrows} = \frac{5\sqrt{3}}{6}\,\frac{e^2}{\hbar c}\,\frac{c}{R}\,\frac{E}{m_0 c^2}. \tag{6}$$

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ACCESSION NR: AP4043800

The probability of transitions with spin flipping in the case of longitudinal polarization is not dependent on initial spin orientation

$$w^{\rightleftarrows} = \frac{5\sqrt{3}}{36\cdot 9}\frac{7c^2}{\hbar c}\frac{c}{R}\frac{E}{m_0c^2}\xi^2. \qquad (7)$$

A different situation prevails for states of polarization of electron spin relative to magnetic field direction.

$$w^{\uparrow\uparrow} = \frac{5\sqrt{3}}{36}\frac{c^2}{\hbar c}\frac{c}{R}\frac{E}{m_0c^2}\xi^2\left(1 + \zeta\frac{8\sqrt{3}}{15}\right). \qquad (8)$$

Thus, as a result of radiation it is possible for there to be predominant orientation of electron spin against the field $\zeta = -1$. This effect also will occur for electrons which are nonpolarized at the initial time. "The authors thank Professor A. A. Sokolov for discussion of the results." Orig. art. has: 47 formulas.

ASSOCIATION: Kafedra teoreticheskoy fiziki Moskovskogo Universiteta. (Department of Theoretical Physics, Moscow University)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AP4043800

SUBMITTED: 15Oct63 ENCL: 00

SUB CODE: NP NO REF SOV: 007 OTHER: 004

Card 5/5

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

[illegible]

[illegible] Ternov, [illegible]

TITLE: Motion of relativistic elec[illegible] [illegible] magnetic field

SOURCE: [illegible]

[illegible] radiation, [illegible]

ABSTRACT: After first reviewing earlier quantum-theoretical studies of the [illegible] The spin [illegible] an electron in an external magnetic field are first described [illegible] coefficients evaluated as functions of the spin-projection direction for [illegible]

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AP[illegible]

Yukawa potential shows that the [illegible] is very large (approximately [illegible] sec for E = 500 MeV in 10^{-5} mm Hg [illegible] and consequently scattering is not

Card 2/3

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

capable of affecting the polarizat[illegible] electron. [illegible]
[illegible] formulas.

ASSOCIATION: Uzhgorodskiy gosuniversitet (Uzhgorod State University)

SUBMITTED: [illegible] ENCL: [illegible]

NR REF SOV: 014 OTHER: 005

Card 3/3

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

Ternov, I. M.; Bagrov, V. G.; Rzayev, R. A.; Khlmenko, Yu. I.

IVUZ, Fizika, no. 6, 1966.

Abstract: The motion of the electron with oriented spin in a constant and homo-

gitudinal and transverse orientation of the spin is analyzed. An exact solution of the Dirac equation with account of the vacuum moment is used to calculate the

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L 22481-65
ACCESSION NR: AP5002259

probability of the change in the spin orientation of a radiating electron. It is shown that account of the interaction

SUBMITTED: 02Jul64 ENCL: 00 SUB CODE: MP, EM

NR REF SOV: 00[illegible] OTHER: [illegible]

Card 2/2

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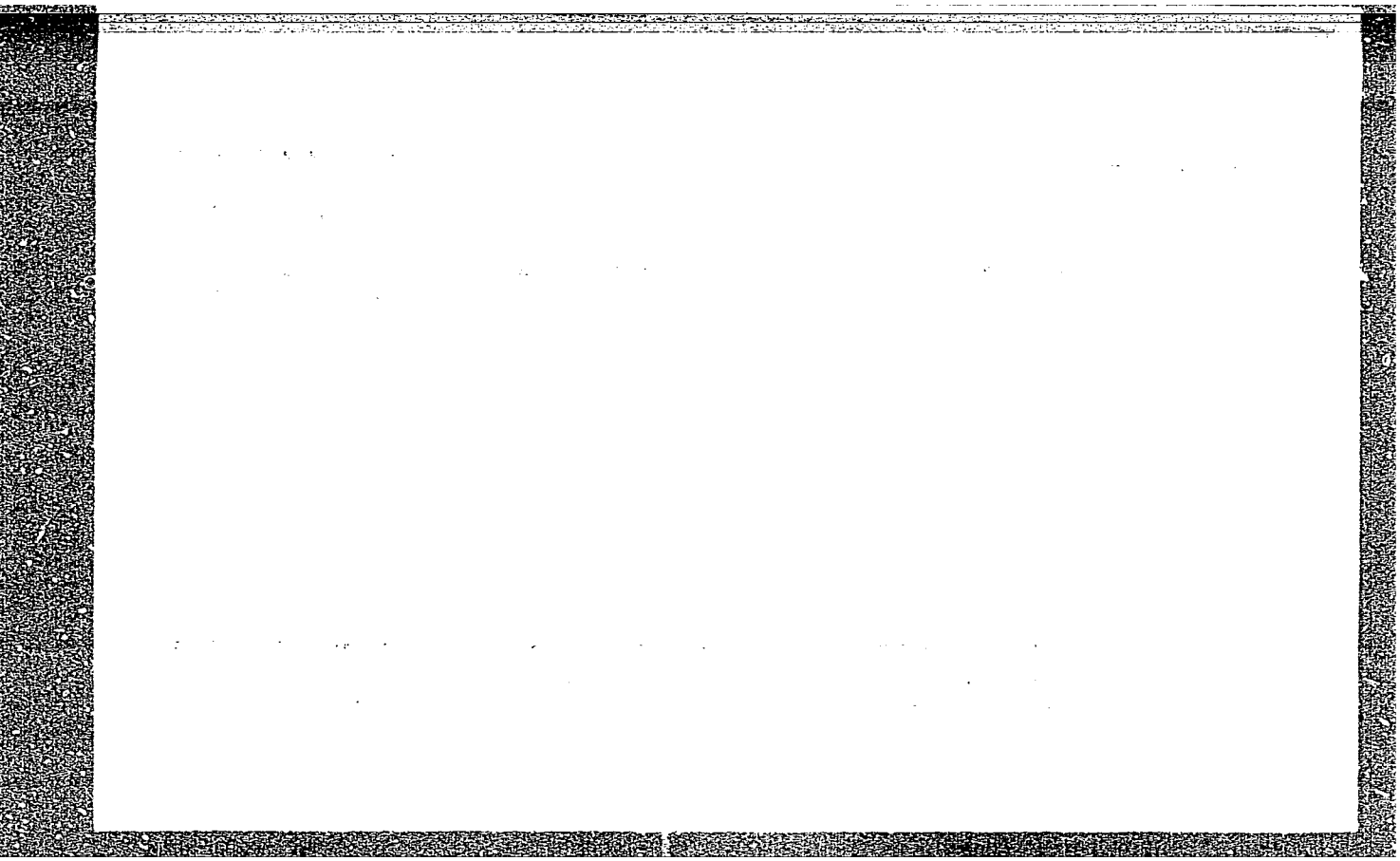
"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9



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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ASSOCIATION: None

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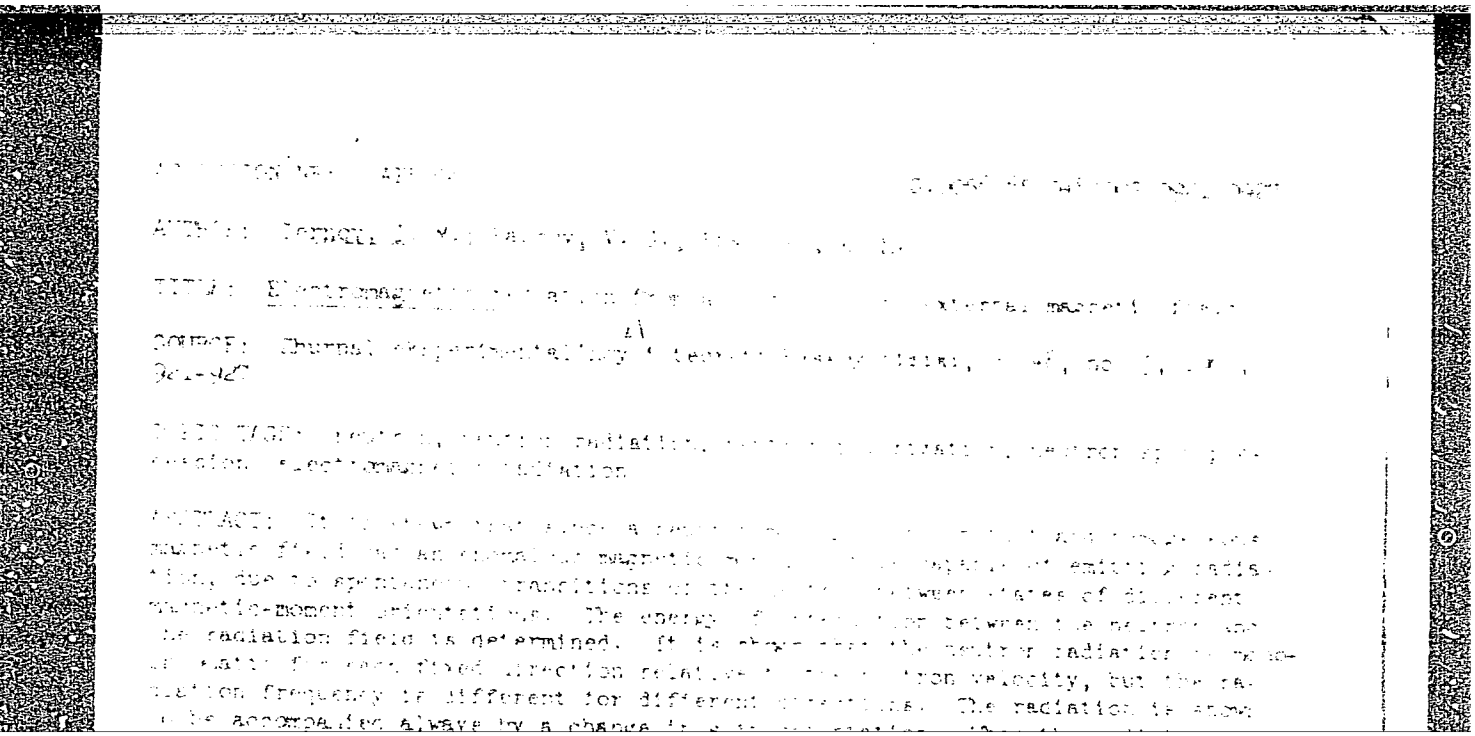

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Card 1/2

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[illegible] spontaneous polarization of the neutron beam is

Card 1/2

L 36509-66 EWT(1) IJP(c) AT

ACC NR: AP6013463 SOURCE CODE: UR/0139/66/000/002/0111/0118

AUTHOR: Ternov, I. M.; Bagrov, V. G.; Rzayev, R. A. 68 B

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Scattering of electrons by a short-range force center in a constant and homogeneous magnetic field

SOURCE: IVUZ. Fizika, no. 2, 1966, 111-118

TOPIC TAGS: electron scattering, potential scattering, electron spin, wave function, constant magnetic field, homogeneous magnetic field

ABSTRACT: The purpose of the investigation was to examine the spin flip of an electron moving in a magnetic field and scattered by short-range centers such as a Yukawa potential. The authors write out the wave function of such an electron with account taken of the fact that this wave function must also satisfy the equation of the eigenvalues of one of the electron-spin polarization operators. The resultant equation is used to obtain the change in the electron spin orientation in the Born approximation. An expression is obtained for the total scattering probability, summed and integrated over all the quantities except the eigenvalues of the spin operators. Only the scattering probability of transversely polarized electrons is of practical interest, since the probability of longitudinal electrons does not differ from that of free electrons. Particular attention is therefore paid to the behavior of the spin projection on the direction of the magnetic field. Approximate expressions are ob-

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

L 36509-66

ACC NR: AP6013463

tained for this probability in several limiting cases. The results show that there is no preferred directivity in the spin flip process. Orig. art. has: 46 formulas.

SUB CODE: 20/ SUBM DATE: 22Jul64/ ORIG REF: 005

Card 2/2 mlp

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACC NR: AP6021950 (A) SOURCE CODE: UR/0188/66/000/002/0097/0101

AUTHOR: Bagrov, V. G.; Dorofeyev, O. F.

ORG: Department of theoretical physics (Kafedra teoreticheskoy fiziki)

TITLE: Radiation of polarized electrons having low energy levels in a magnetic field

SOURCE: Moscow. Universitet. Vestnik. Seriya III. Fizika, astronomiya, no. 2, 1966, 97-101

TOPIC TAGS: quantum number, electron radiation, electron polarization, electron spin, electron energy level, relativistic electron, electron spectrum

ABSTRACT: Quantum theory methods are used to analyze the radiation of electrons with oriented spin, moving in a magnetic field and having low energy levels. Comparison of the expressions for the intensity of radiation of a relativistic electron moving in a constant and homogeneous magnetic field, obtained in classical theory and with allowance for quantum corrections, shows that quantum effects begin to play a noticeable role at high electron energies, when the electron quantum number (n) of the electron is large and the spectrum is quasicontinuous. It is shown that at small values of n, the discreteness of the energy spectrum can greatly influence the radiation intensity. In that case, and for longitudinal polarization of the electron spin, the electron is shown to radiate only approximately half what classical theory calls

Card 1/2 UDC: 538.3:530.145

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ACC NR: AP6021950

for. Furthermore, unlike in classical theory, a longitudinally-polarized electron radiates light which is circularly polarized. In the case of transverse polarization, the radiation of an electron with spin oriented opposite the field agrees with the classical value, but spin flip again leads to a difference between the classical and quantum values. The smaller the principal quantum number, the greater the deviation between classical and quantum theories. The authors thank Professor I. M. Ternov for interest and discussions. Orig. art. has: 7 formulas.

SUB CODE: 20/ SUBM DATE: 25Nov64/ ORIG REF: 005

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

SOLLERTINSKAYA, T.N.; BAGROV, Ya.Yu.; BALONOV, L.Ya.

Analysis of the effect of the phylogenetically ancestral brain systems on the electrical activity of the cerebral cortex. Zhur. evol. biokhim. i fiziol. 1 no.3:281-289 My-Je '65. (MIRA 18:7)

1. Laboratoriya sravnitel'noy fiziologii tsentral'noy nervnoy sistemy i laboratoriya patologii vysshey nervnoy deytatel'nosti cheloveka Instituta evolyutsionnoy fiziologii i biokhimii imeni Sechenova AN SSSR, Leningrad.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, Ya.Yu.

Significance of determining glutamic-oxalacetic transaminase in the diagnosis and differential diagnosis of acute myocardial infarction. Sov. med. 25 no.10:3-11 O '61. (MIRA 15:1)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zav. - prof. A.A.Kedrov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(HEART--INFARCTION) (GLUTAMIC-OXALACETIC TRANSAMINASE)
(DIAGNOSIS, DIFFERENTIAL)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, Ya.Yu.

Pathogenesis of increased transaminase activity in the blood in myocardial infarct. Terap.arkh. 33 no.10:19-23 '61. (MIRA 15:1)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zav. - prof. A.A. Kedrov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(HEART--INFARCTION) (TRANSAMINASES)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROV, Ya.Yu.; LICHKO, A.Ye.

Clinical manifestations and mechanisms of cardiovascular reactions in insulin hypoglycemia. Probl. endok. i gorm. 11 no.2:30-36 Mr-Ap '65. (MIRA 18:7)

1. Laboratoriya patologii vysshoy nervnoy deyatel'nosti cheloveka (zav. - prof. N.N.Traugott) Instituta evolutsionnoy fiziologii i biokhimii imeni I.M.Sechenova (direktor - chlen-korrespondent AN SSSR Ye.M.Kreps) AN SSSR, Leningrad.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BLAZHNIY, Ye.S.; BAGROV, Yu.N.

Physical properties of packed Chernozems. Pochvovedenie no.12: 23-29 D '60. (MIRA 14:1)

1. Kubanskiy sel'skokhozyaystvennyy institut.
(Chernozem soils)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, A. S.

"To the Epidemiology of Typhus Exanthematicus. 35th communication. The Nature of the Interruption in the Course of Morbidity of Typhus Exanthematicus in the Unsafe Populated Localities," Zhur. ~~Epidemiol~~ Mikrobiol. Epidemiol. i Immunobiol., Nos. 1-2, 1944

Dept. Epidemiol., Central Inst. for Adv. Trg. of Physicians, Leningrad

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, G.M.

The flow of cold air from shore slopes during winter and spring time. Izv. Vses. geog. ob-va 94 no.3:252-255 My-Je '62. (MIRA 15:7)
(Krasnoye Lake (Karelian Isthmus)--Winds)
(Krasnoye Lake (Karelian Isthmus)--Atmospheric temperature)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, G.M.

Characteristics of the radiation regime on water and land surfaces.
Izv.Vses.geog.ob-va 95 no.1:41-49 Ja-F '63. (MIRA 16:4)
(Krasnoye, Lake region (Leningrad Province)--Radioactivity--
Measurement)
(Krasnoye, Lake region (Leningrad Province)--Earth--Surface)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, G.M.

Comparative characteristics of the radiation regime of Bologoye District lakes. Izv. Vses. geog. ob.-va 97 no.2:163-166 Mr-Ap '65. (MIRA 18:5)

1.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

L 36368-66 EWP(j)/EWT(m) IJP(c) RM
ACC NR: AP6009869 (A) SOURCE CODE: UR/0413/66/000/004/0067/0067

27
B

INVENTOR: Frenkel', R. Sh.; Bagrova, N. M.

ORG: none

TITLE: Making rubber with a synthetic fiber filler. Class 39, No. 178976 [announced by the Volga Branch of Scientific-Research Institute for the Rubber Industry (Volzhskiy filial nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 67

TOPIC TAGS: rubber, natural rubber, synthetic rubber, synthetic fiber

ABSTRACT: An Author Certificate has been issued describing a method of making rubber filled with synthetic fiber derived from nautral and synthetic rubbers. To improve the physical and mechanical properties of the product, the vulcanizers are heated additionally in air at 100—170C. [LD]

SUB CODE: 11/ SUBM DATE: 25May64

Card 1/1 UDC: 678.4.046.76

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACC NR: AP7000913 (A) SOURCE CODE: UR/0138/66/000/012/0020/0022

AUTHOR: Frenkel', R. Sh.; Bagrova, N. M.; Zheltyshev, Yu. G.; Vinogradov, N. N.

ORG: Volga Branch, Scientific Reseach Institute of the Rubber Industry (Volzhskiy filial nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti)

TITLE: Study of the reinforcement of rubbers with various fibers

SOURCE: Kauchuk i rezina, no. 12, 1966, 20-22

TOPIC TAGS: reinforced rubber, filler, natural rubber, synthetic fiber

ABSTRACT: A study has been made of the reinforcement of rubbers with fibers and of the effect of various fibers on the properties of rubber vulcanizates. The study was undertaken for the purpose of preparing substitutes for fabric-reinforced rubbers whose production technology is of some complexity. The experiments were conducted with natural, butadiene-styrene (SKS-30 ARM-15), nitrile (SKN-26), or polychloroprene (Nairit) rubbers, and with natural (flax, cotton) or synthetic (polycaprolactam, dacron, viscose) 30 mm fiber strands. The adhesium of the synthetic fibers to the rubbers was improved by impregnation of the fibers with adhesive compositions. Caprolactam fibers required preliminary treatment with a 20% NaOH solution at 75C. Rubber-fiber mixtures were prepared on preheated mills. Other [unspecified] ingredients were added under the usual conditions. The mixtures, containing 100 parts rubber, 60 parts fiber, and in most instances, 30 parts carbon black, were

Card 1/2 UDC: 678.4/.7:678.046.76

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ACC NR: AP7000913

vulcanized at 143C for 40 min. The properties of the vulcanizates with and without carbon black were investigated. Carbon black did not improve the properties of the vulcanizates, but carbon black of any type proved to be a necessary ingredient [reason unspecified]. Fiber-and-carbon-black-reinforced vulcanizates had high resistance to thermal aging and creep, satisfactory elasticity, and high tear-resistance. The best reinforcing properties were exhibited by caprolactam fibers impregnated with a mixture of carboxylated polybutadiene (SKD-1) latex (dry matter content, 20%) and a 40% solution of resorcinol-formaldehyde resin. Heat treatment of Nairit vulcanizates yielded products with the following properties: tensile strength, 500 kg/cm^2; elongation, 50%; residual elongation, 2%. It is concluded that the good properties of fiber-and-carbon-black-reinforced vulcanizates are favorable to the expansion of their use in industry as eventual substitutes for fabric-reinforced rubber products, such as tires, conveyer belts or hoses. Orig. art. has: 1 figure and 3 tables.

SUB CODE: 11, 07/ SUBM DATE: 22Jul65/ ORIG REF: 001/ OTH REF: 001/ ATD PRESS: 5108

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, R. KH.

Defended his Dissertation for Candidate of Technical Sciences in the Ural Forestry Engineering Institute, Sverdlovsk, 1953

Dissertation: "Investigation of the Yields of Products of Pyrolysis of Birch, Pine, and Spruce Wood Pulp as Affected by Different Various End Temperatures of the Pyrolysis"

SO: Referativnyy Zhurnal Khimiya , No. 1, Oct. 1953 (W/29955, 26 Apr 54)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, R.Kh.

VORONTSOV, R.V.; BAGROVA, R.Kh.

On "fatiguing" of silver catalysts in formalin production.
Gidrolis. i lesokhim.prom.8 no.5:15 '55. (MLRA 9:1)

1.Ural'skiy lesotekhnicheskiy institut.
(Catalysts)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, R.Kh., KOZLOV, V.N.

Pyrolysis of birch, pine, and spruce woods at various final heating temperatures. Sbor.rab.Lab.lesokhim. no.2:97-101 '58. (MIRA 12:8)

(Wood distillation)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVA, R.Kh.; DERYAGINA, Ye.S.; KOZLOV, V.N.

Results of investigating the yield of the products of poplar wood pyrolysis. Trudy Inst.khim.UFAN SSSR no.6:29-32 '61. (MIRA 16:2)

(Wood distilation)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

TARNOPOL'SKAYA, M.M.; KANGELARI, S.S.; BAGROVA, S.M. (Khar'kov)

Role of prophylaxtic ultraviolet radiation in reducing the incidence of colds affecting the upper respiratory tract. Gig.truda i prof.zab. 3 no.4:46-47 Jl-Ag '59. (MIRA 12:11)

1. Ukrainskiy institut gigiyeny truda i profzabolevaniy.
(ULTRAVIOLET RAYS--THERAPEUTIC USE)
(COLD (DISEASE))

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AT4016874 S/2531/63/000/143/0130/0137

AUTHOR: Bagrova, Ye. I., Gandin, L. S.

TITLE: Method for computation of wind norms in the middle troposphere

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 143, 1963, Voprosy* chislennogo prognoza i struktura meteorologicheskikh poley (Problems in numerical forecasting and structure of meteorological fields), 130-137.

TOPIC TAGS: meteorology, wind, troposphere, weather forecasting, isobaric surface, atmospheric geopotential, geostrophic wind.

ABSTRACT: A method is proposed for computing wind norms on the basis of the norms for the geopotential of isobaric surfaces. "Norms" are the mean long-term mean monthly values. Objective analysis of wind fields requires a knowledge of wind distribution over the area of interest, which in turn requires knowledge of the mean wind vector, or the mean values of its two components. Such data are unobtainable from handbooks. An indirect computation method therefore is presented for determination of wind field norms, based on the assumption that the norms of the real wind coincide with the norms of the geostrophic wind; there is no basis to assume their noncoincidence. Norms are determined from a

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

ACCESSION NR: AT4016874

limited sample. Norms of the geostrophic wind are computed directly from a chart of norms for the isobaric surface of interest. This is done very precisely by a method described. The 500-mb surface was used; isobars were smoothed subjectively where the pattern was complex. Transformations required for conversion of computed data to the zonal and meridional components of the geostrophic wind are discussed; suitable formulas are presented, but tables can be used in practice. Charts of the norms of the zonal and meridional wind components at the 500-mb surface were prepared for each month (24 charts). Accuracy of the method was checked against the Upper Wind Statistics Charts of the Northern Hemisphere. Orig. art. has: 3 formulas, 3 figures and 3 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00 DATE ACQ: 20Feb64 ENCL: 00

SUB CODE: AS NO REF SOV: 002 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

PHASE I BOOK EXPLOITATION SOV/4174
SOV/2-8-99

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy chislennogo prognoza i teorii klimata (Problems in Numerical Weather Forecasting and Climatology). Leningrad, Gidrometeoizdat, 1959. 129 p. (Series: Its. Trudy, vyp. 99) Errata slip inserted. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Eds.: M.Ye. Shvets, Doctor of Physics and Mathematics, and M.I. Yudin, Doctor of Physics and Mathematics; Ed. (Inside book): T.V. Ushakova; Tech. Ed.: N.V. Volkov.

PURPOSE: The publication is intended for specialists in the field of dynamic and synoptic meteorology and climatology, as well as for graduate students in these fields.

COVERAGE: This is a collection of 11 articles published as No. 99 of the Transactions of the Main Geophysical Observatory imeni. A.I. Voyeykov and dealing with new methods of numerical analysis prognosis. Individual articles are concerned with contiguous problems of climatology: temperature anomalies in the atmosphere, effect of the heat of condensation on pressure changes, numerical prognosis of the pressure pattern affected by orographic factors, and the hydrodynamic theory of frontal cyclogenesis. References accompany each article.

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Gandin, L.S. Numerical Methods of Map Analysis 48

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Du Sin-yuan'. Spatial Problem in the Numerical Forecast of a Baric Field Taking into Account the Influence of High Plateaus 93

Du Sin-yuan'. Problem of the Hydrodynamic Theory of Frontal Cyclogenesis 105

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Shvets, M.Ye., and R.L. Kagan. Problem of Calculating Vertical Velocity in the Atmosphere 123

AVAILABLE: Library of Congress

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9-8-60

Card 3/3

(4)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

GANDIN, L. S.; BAGROVA, Ye.I.; ZAKHAROVA, M.N.; MESHCHERSKAYA, A.V.

Static control of aerological telegrams. Trudy GGO no.151:3-16 '64 (MIRA 17:7)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

PEN'KOVSKAYA, A.T., kand.med.nauk; BAGROVA, Z.D.

Immediate and late results in treating tuberculosis of the lungs with antibacterial preparations. Probl.tub. 39 no.1: 46-50 '61. (MIRA 14:1)

1. Iz Litovskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk Yu.L. Gamperis, zam. dir. po nauchnoy chasti - prof. I.Ye. Kazakevich).
(TUBERCULOSIS)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

USSR/ Agriculture - Stock breeding

Card 1/1 : Pub. 123 - 12/17

Authors : Butarin, N. S.; Yes'kov, P. A.; Miletskiy, D. M.; and Bagrovskaya, N. N.

Title : Increasing the productivity of sows of large white-stock by means of double mating with different boars.

Periodical : Vest. AN Kaz. SSR 11/1, 105-109, Jan 1954

Abstract : An account is given of controlled experimentation with the crossing of sows with a single boar and with several boars, with comparative figures of the number of offspring and individual weights at various periods. Eleven Russian references (1940-1953). Table.

Institution : ...

Submitted : ...

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGROVSKAYA, N. N.

USSR/ Agriculture - Stock raising

Card 1/1 : Pub. 123 - 7/13

Authors : Butarin, N. S.; Yes'kov; Miletskiy, D. M.; and Bagrovskaya, N. N.

Title : Experiments in fattening medium-type hybrids from wild boars and domestic sows on a non-concentrated type of feed

Periodical : Vest. AN Kaz. SSR, 11/2, 61-66, Feb 1954

Abstract : The belief in the use of concentrated feed in fattening hogs is held to be erroneous and extensive data are collected from experimentation with different kinds of hybrids and different kinds of feed. An analysis of these data shows that even more pork is produced with the less concentrated feed at a great saving of outlay. Ten Russian references (1943-1951). Tables.

Institution : ....

Submitted : ....

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

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KRIVOSHAPKIN, N.A., vet. vrach; BAGROVSKAYA, N.N., vet. vrach.

Using antibiotics for the preservation of blood. Veterinariia 34 no.10: 72-73 O '57. (MLRA 10:11)
(ANTIBIOTICS) (BLOOD--COLLECTION AND PRESERVATION)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

USPENSKIY, B.D., doktor fiz.-mat. nauk, prof.; BELOUSOV, S.L., kand. fiz.-mat. nauk; PYATYGINA, K.V.; YUDIN, M.I.; MERTSALOV, A.N., kand. fiz.-mat. nauk; DAVYDOVA, O.A.; KUPYANSKAYA, A.P.; PETRICHENKO, I.A.; MORSKOY, G.I.; TOMASHEVICH, L.V.; SAMOYLOV, A.I.; ORLOVA, Ye.I.; DZHORDZHIO, V.A.; PETRENKO, N.V.; DUBOVYY, A.S.; ROMOV, A.I.; PETROSYANTS, M.A.; GLAZOVAYA, [illegible] BATYAYEVA, T.F.; BEL'SKAYA, N.N.; CHISTYAKOV, A.D.; GANDIN, L.S.; BURTSEV, A.I.; MERTSALOV, A.N.; BAGROVYY, N.A.; BELOV, P.N.; ZVEREV, A.S., retsenzent; SIDENKO, G.V., red.; [illegible] red.; DUBENTSOV, V.R., kand. fiz.-mat. nauk, nauchn. red.; SAGATOVSKIY, N.V., red.; BUGAYEV, V.A., doktor geogr. nauk, prof., red.; ROGOVSKAYA, Ye.G., red.

[Manual on short-range weather forecasts] Rukovodstvo po kratkosrochnym prognozam pogody. Leningrad, Gidrometeoizdat. Pt.1. Izd.2., perer. i dop. 1964. 519 p. (MIRA 18:1)

1. Moscow. TSentral'nyy institut prognozov.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BURKOVSKIY, Yu.A.; ANDROSOV, A.A.; KOTOLUP, G.A.; BAGRYANOVA, G.D.

Some problems of the overall mechanization of extraction operations at cement plant quarries. Sbor.trud. Novorossgiprotsementa no.1:34-43 '61. (MIRA 16:2)

(Quarries and quarrying)
(Cement plants)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

Cand Med Sci

BAGRYANSKAYA, M. F., PHYSICIAN

Dissertation: "Morphology and Innervation of the Tonsil in Human."
30/6/50

Second Moscow State Medical Inst Imeni

I. V. Stalin

SO Vecheryaya Moskva
Sum 71

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKAYA, M.F.

Some comparative anatomical data on the structure of the facial nerve. Izv. Vor. gos. ped. inst. 46:126-132 '63. (MIRA 18:4)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKIY, K. V.

BAGRYANSKIY, K. V. -- "EFFECT OF THE SHAPE OF ELEMENTS IN WELDED STRUCTURES AND CERTAIN PARAMETERS OF THE TECHNOLOGY OF WELDING ON THE FORMATION OF HOT CRACKS." SUB 24 MAR 52, MOSCOW ORDER OF LABOR RED BANNER HIGHER TECHNICAL SCHOOL IMENI BAUMAN (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCES)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

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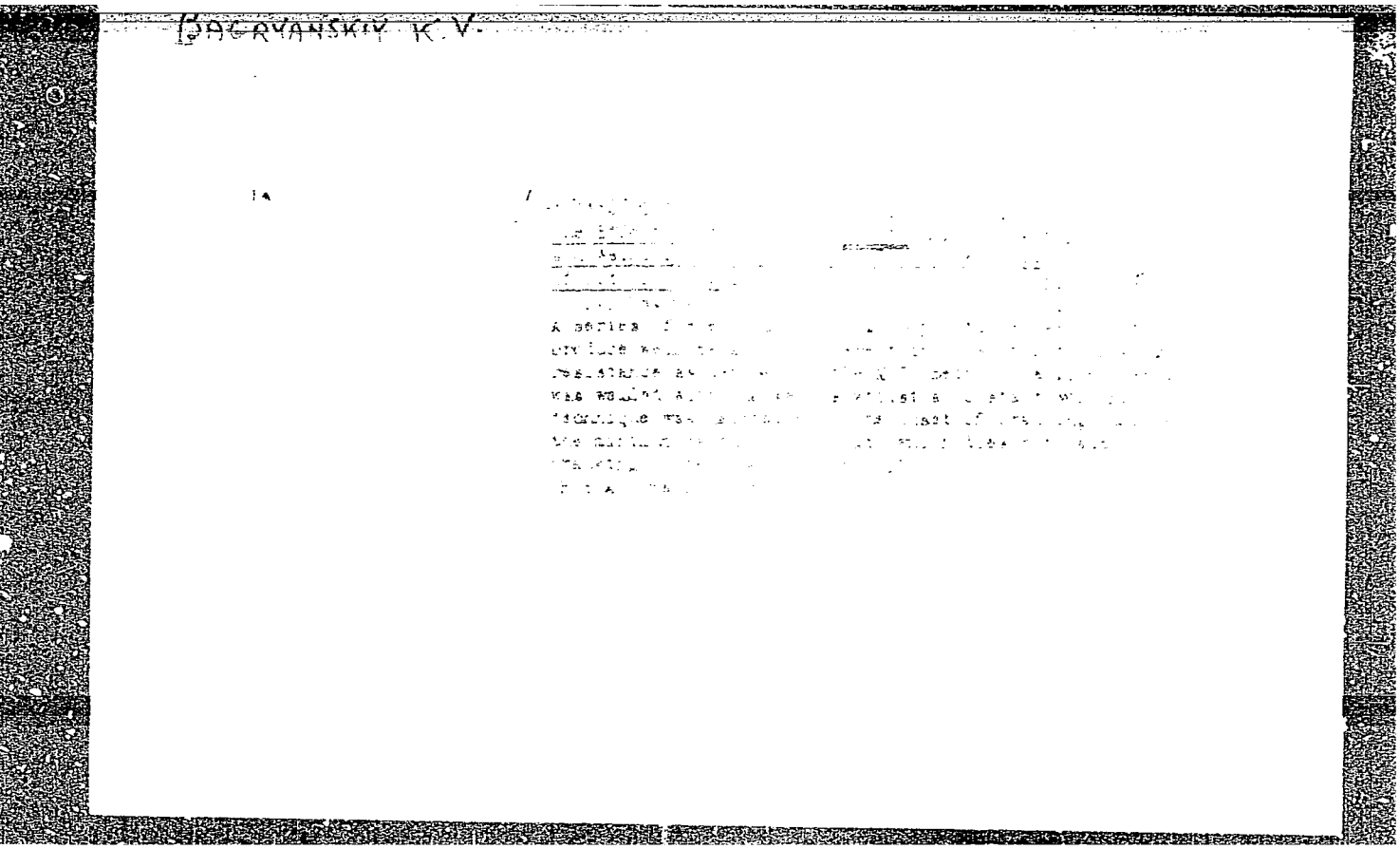
BAGRYANSKIY K.V.



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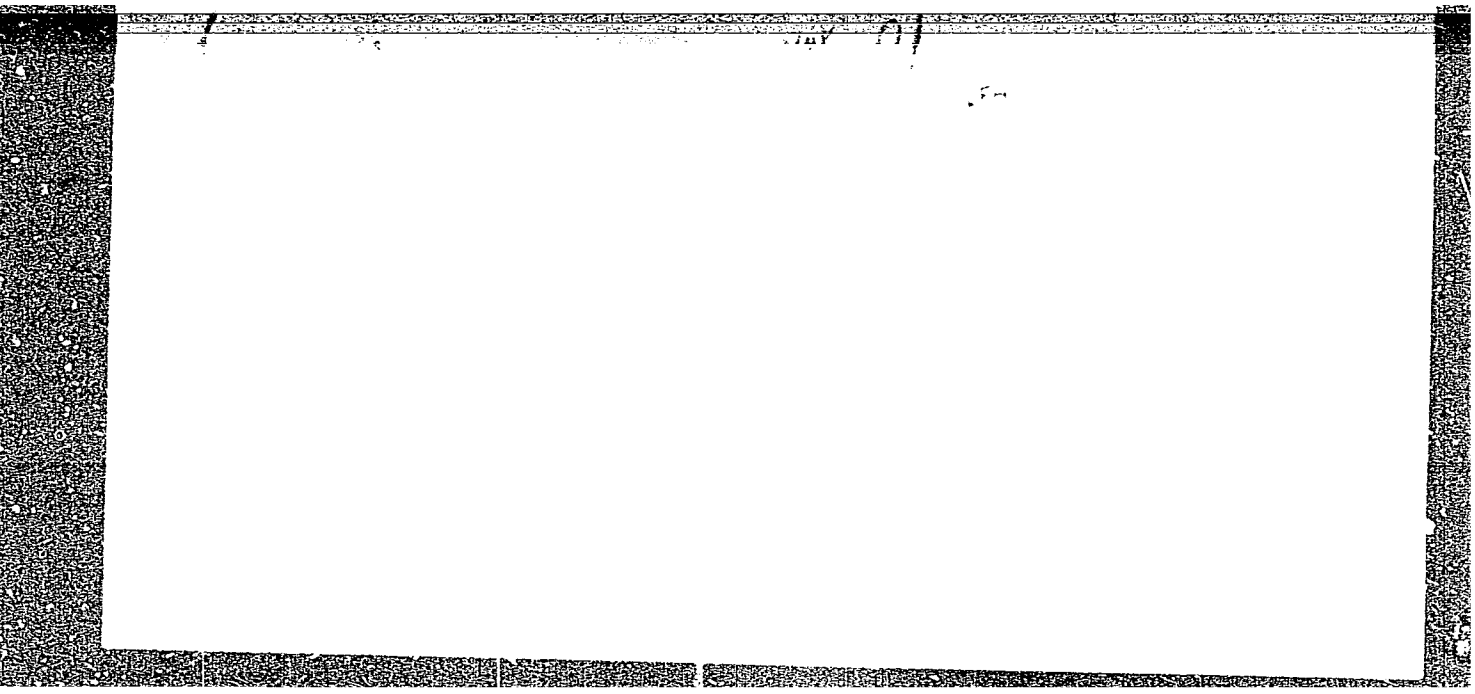

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKIY, K.V., kandidat tekhnicheskikh nauk; KASSOV, D.S., inzhener.

Automatic flux welding of copper. Vest.mash. 33 no.11:85-86 N '53.
(MLRA 6:12)
(Welding)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKIY, K. V.

USSR

16172* Automatic Application of Weld-Deposited Coating on Blooming Rolls. Avtomaticheskaia naplavka valkov bliumingu. (Russian.) K. V. Bagrianskii, I. M. Kramchaninov, D. S. Kassov, and V. T. Sopin. *Svarochnoe Proizvodstvo*, 1955, no 5, May, p. 20-23.

Composition of welding mixture. Welding machine used. Corrosion-, fracture-, and wear-resistance of weld-coated areas of roll. Photographs, diagrams, table, micrograph. 9 ref.

M 32

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

124-57-1-1259

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 173 (USSR)

AUTHOR: Bagryanskiy, K. V.

TITLE: Investigation of Elastic-plastic Deformations in a Weld During the Welding Process (Issledovaniye uprugoplasticheskikh deformatsiy v shve v protsesse svarki)

PERIODICAL: Sb. statey Mosk. vyssh. tekhn. uch-shcha, 1955, Vol 37, pp 97-104

ABSTRACT: Examination of the deformation arising in a weld during the cooling of a thin platelet after the welding of a fillet along its axis. The calculation of the elastic and plastic deformation is set forth. The calculations comprise the effects of the temperature deformations and the reactions of the connections. The temperature deformations for the abovementioned calculation are obtained experimentally; the free temperature deformation is measured on a dilatometric apparatus and the relative deformation of the metal during its cooling in the welding pool are measured in both the longitudinal and the transverse directions. The temperature was measured simultaneously. A special device was developed for the measurement of the deformations of the metal

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Investigation of Elastic-plastic Deformations in a Weld (cont.)

during cooling from 1350-1400°C. The deformation-measuring device is constructed around an indicator head with tungsten tips. The legs of the device are immersed in the molten metal of the welding pool; they become integral part of the cooling and solidifying metal and are deformed together with the metal of the weld; the deformation, together with the temperature, is recorded on an oscillograph loop. The method and apparatus developed were used to investigate the transverse deformations occurring during the butt welding of St. 3 plates 12 mm thick and of various widths. The method and equipment may be used to evaluate the effect of certain fabrication and design parameters of articles on the magnitude and character of the deformation in the metal of the weld. The work was performed at the welding laboratory of the MVTU (Moscow Technical College).

1. Welds--Deformation--Measurement

G. A. Nikolayev

Card 2/2

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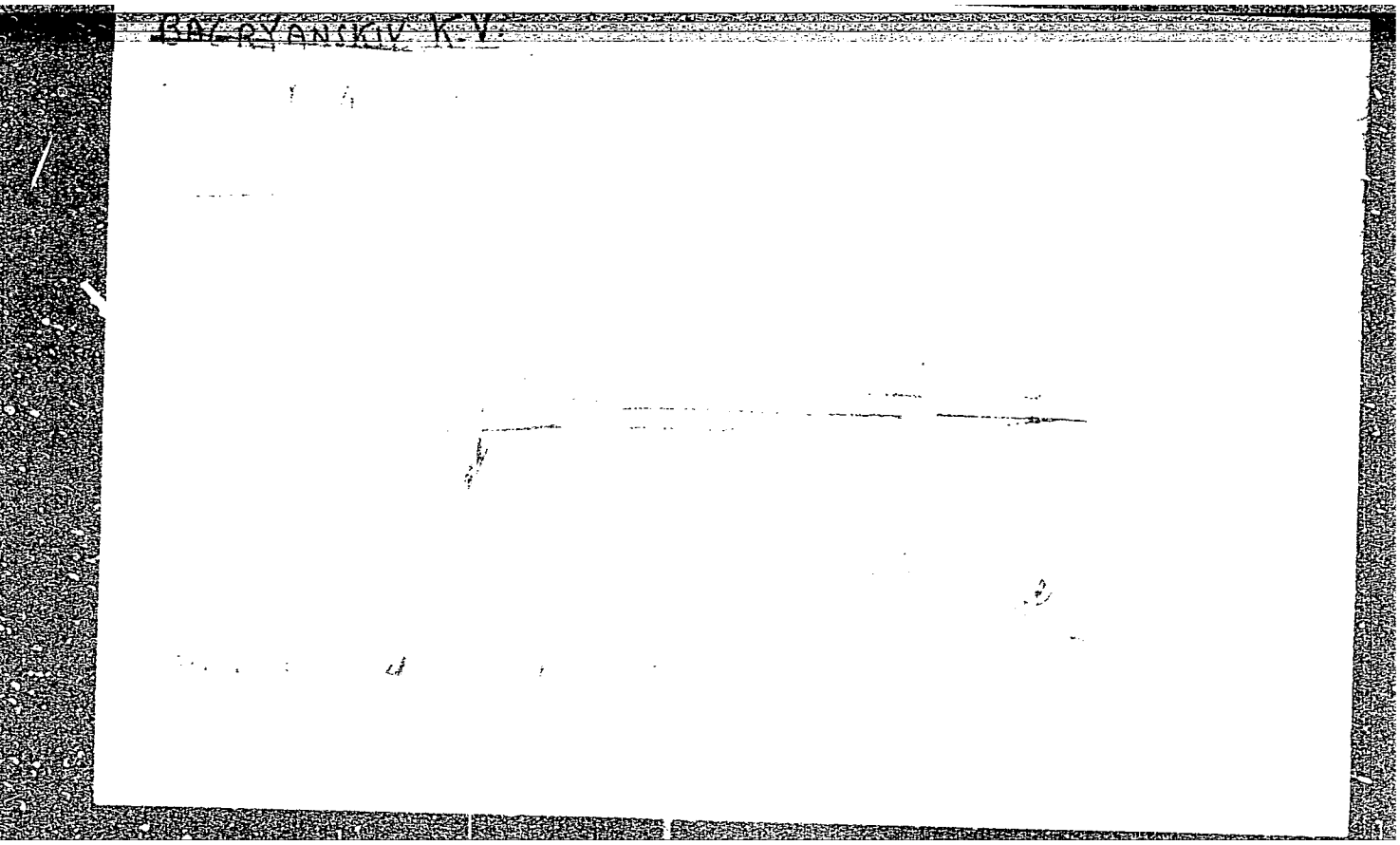

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

Bagryanskiy, K.V.

SUBJECT: USSR/Welding

135-2-4/12

AUTHORS: Bagryanskiy, K.V., Candidate of Technical Sciences; Sopin, V.T. engineer; and Kramchaninov, I.M., engineer.

TITLE: Automatic surfacing of rolling mill rollers under ceramic fluxes. (Avtomaticheskaya naplavka valkov prokatnykh stanov pod keramicheskimi flyusami).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 2, pp 13-15 (USSR).

ABSTRACT: Practical experience in re-surfacing worn rolling mill - rollers in the metallurgical plant "Azovstal'".

Surfacing is performed on a lathe adapted for the process by adding a reductor to slow down revolving, and installing on one of the lathe carriages the welding head on a bracket. The additional reductor keeps the revolving roll in the speed range of 18-30 m/hr. The bracket carrying the welding head is turnable a full circle and so does not interfere when the roll is installed in the lathe. The capacity of the flux container and the welding wire container allow 9 hours of continuous work. Pre-heating the work surface is done by two gas-air torches made of a tube and bent in conformity with the roll surface.

Card 1/4

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

TITLE: Automatic surfacing of rolling mill rollers under ceramic fluxes. (Avtomaticheskaya naplavka valkov prokatnykh stanov pod keramicheskimi flyusami). 135-2-4/12

A special flux-holding fixture, made of flexible steel strip and sectors riveted to it, holds the flux at the work spot on the roller and is adaptable to any roller diameter.

The surfacing technology is given in detail. It consists basically in 1) cleaning the roller surface with a steel brush- or, in case of deep corrosion, by turning off 1-2 mm; 2) local pre-heating the surface; 3) surfacing the side faces of the roller's circular rim by depositing layer upon layer. The welding regimen is: 550 - 580A, 28-30 V, circumferential speed - 18m/hr, welding wire diameter - 5 mm. The ceramic flux presently used, ЖС -320, consists of: 53 % marble, 21% feld- spar, 5 % ferrochrome Хр -6, 7 % chrome ore, 8 % ferrotitanium, 3 % ferromanganese МН1, 1 % graphite, 2 % ferrosilicon СМ -45. Also referred as satisfactory are fluxes ЖС200, 240 and 280.

The components (in %) of the basic and the coating metal are the following:

Coating - 0.28 C, 3.1 Cr, 1.5 Mn, 0.18 Si, traces Ti, 0.014 S, 0.015P;

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

TITLE: Automatic surfacing of rolling mill rollers under ceramic fluxes. (Avtomaticheskaya naplavka valkov prokatnykh stanov pod keramicheskimi flyusami). 135-2-4/12

base metal (steel 55 Х) - 0.5 C, 1.10 Cr, 0.51 Mn, 0.18 Si, 0.1 Ni, 0.03 S, 0.03 P.

Hardness of coating is easily controlled by replacing ferrochromium ХР-6 by other ferrochromium grades, as ХР-4, ХР-1, ХР-00, which have different carbon content, or by increasing the graphite content in the flux. Higher carbon content in the flux not only increases the carbon content in coating metal but also is conductive to better transition of alloying elements from the flux into the coating metal.

Laboratory inspection did not discover any material influence of arc voltage on the composition of coating. For this laboratory test, the welds were made on the machine АДС-1000-2, with 28-36V and 550A, welding wire Св -08 of 5 mm diameter, and the flux ЖС-320.

The roller coating obtained in the plant by the described technology is of uniform composition and hardness, shows uniform wear in service. It is not necessary to re-dry the flux which is kept in open cases under a shed. In general,

Card 3/4

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

TITLE: Automatic surfacing of rolling mill rollers under ceramic fluxes. (Avtomaticheskaya naplavka valkov prokatnykh stanov pod keramicheskimi flyusami). 135-2-4/12

the ceramic fluxes have proved to be of technical and commercial advantage.

Referred as co-workers are: the rolling-mill's chief superintendent of "Azovstal'", Engineer N.F. Protasov; the designing department manager Engineer V.A. Tyagus; superintendents: Engineers M.I. Stukalov, and Yu.A. Shapiro; and deputy manager of the technical department Engineer A.I. Zhemchuzhnikov.

The article contains 4 tables, 3 drawings, 2 photographs.

INSTITUTION: Zhdanovskiy metallurgical plant (Zhdanovskiy metallurgicheskiy zavod).

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress

Card 4/4

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKIY, K.V., kand. tekhn. nauk; KASSOV, D.S., inzh.; IVANOV, V.M., inzh.

Arc welding of copper anodes under ceramic flux. Svar. proizv. no.2:33-35 F '59. (MIRA 12:1)

1.Zhdanovskiy metallurgicheskiy institut.
(Copper--Welding) (Electric welding)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

SOV/135-59-11-3/26

18(5,7)

AUTHORS: Bagryanskiy, K.V., Candidate of Technical Sciences, Kuz'min, G.S., and Kassov, D.S., Engineers

TITLE: Automatic Submerged-Arc Welding of Technically Pure Nickel with Ceramic Flux

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 11, pp 6-8 (USSR)

ABSTRACT: Welding of nickel is usually performed by oxy-acetylene flame in a protective gas-atmosphere. Hand-arc welding of nickel, owing to the absence of electrodes providing the welds without pores and cracks, was found not applicable. It was established that the best method of nickel welding would be an automatic welding with melting electrode under flux. The whole problem was that of the selection of a proper flux to ensure obtaining welds, possessing the required properties. In 1956-58, the Department of Welding Practice at the Zhdanov Metallurgical Institute carried out research on nickel welding, applying a number of industrual fluxes OSTs-45, FTs-6, AN-348A, AN-60 and AN-20. Experience has shown that all these fluxes are, owing to contamination of weld metal with iron,

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Automatic Submerged-Arc Welding of Technically Pure Nickel with Ceramic Flux

silicon, manganese, sulphur, phosphorus, oxygen and other admixtures, not suitable for nickel welding (Table 1). The need for working out a new flux which would give better results appeared. On the basis of numerous experiments, such as flux was finally found; it is an agglomerated flux, the chemical composition of which is $CaO-5CaO.3Al_2O_3-CaF_2$ with a number of strong deoxiders. The new flux was called ZhN. Testing welds produced with the application of ZhN flux has shown good results (Fig 2). When researching, nickel plates, 5, 7, and 10 mm thick were used; butt, lap, and tee weldings were performed. Metallographic research disclosed that weld metal is, in this case, compact, without pores, crack, gas or slag inclusions (Fig 3). The method of niclel welding with agglomerated flux can be highly recommended. There are 2 tables, 3 photographs and 6 references, 4 of which are Soviet and 2 English.

Card 2/2

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

KRAMCHANINOV, I.M., inzh.; BAGRYANSKIY, K.V., kand. tekhn.nauk;
LITVINENKO, Yu.P., inzh.; NASTOLOVSKIY, L.A., inzh.

Wear-resistant built-up welding of sheet mill rolls. Izv.vys.
ucheb.zav.; radiotekh. 3 no.1:24-26 Ja-F '60. (MIRA 13:8)

1. Zhdanovskiy metallurgicheskiy institut.
(Rolls (Iron mills)--Maintenance and repair)

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9"

"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKIY, K.V., kand.tekhn.nauk; DOBROTINA, Z.A., kand.tekhn.nauk; SOPIN, V.T., inzh.; KAL'YANOV, V.N., inzh.

Effect of operating conditions on the chemical composition of metals deposited under a ZhS-type ceramic flux. Svar.proizv. no.8:20-22 Ag '60. (MIRA 13:7)

1. Zhdanovskiy metallurgicheskiy institut.
(Hard facing) (Flux(Metallurgy))

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

S/135/61/000/004/005/012
A006/A101

AUTHORS: Bagryanskiy, K. V., Candidate of Technical Sciences, Kuz'min, G. S. Pavlyuk, S. K., Engineers

TITLE: New Electrodes for Manual Arc Welding of Nickel

PERIODICAL: Svarochnoye proizvodstvo, 1961, No. 4, pp. 22 - 23

TEXT: Conventional H 10 (N 10) and H-37 (N-37) electrodes for manual welding of nickel do not assure sufficiently high and stable strength of weld joints. Therefore the authors attempted to develop efficient and cheap electrodes with satisfactory technological properties, producing high-quality weld joints. The thermodynamical calculation of metallurgical processes in the welding of nickel and a great number of experimental data were used as basis of investigations carried out at the welding department of the Zhdanov Metallurgical Institute and the Berdichev "Progress" Plant. As a result the new "Progress 50" electrodes were developed with acid type coatings, containing titanium dioxide, fluorine concentrate, sodium fluoride, manganese, titanium powder, aluminum powder, bentonite and sodium silicate. The composition of the electrode coating is available at request. The electrodes are intended for manual electric arc

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

S/135/61/000/004/005/012
A006/A101

New Electrodes for Manual Arc Welding of Nickel

welding of N-1 nickel by GOST 849-56 and of NP-1, and NP-2 nickel by GOST 492-52. The electrodes can be manufactured by pressing or dipping. The thickness of the coating is for 3, 4 and 5 mm diameter electrodes 1 - 1.2; 1.2 - 1.3 and 1.3 - 1.5 mm respectively. The electrodes permit welding in any position with d-c of reverse polarity. Recommendations are given as to welding condition and, preparation of egdes for welding. The electrodes assure easy excitation and stable burning of the arc, satisfactory formation of the weld joint, having no pores, cracks and gaseous or slag inclusions, and showing corrosion resistance equal to that of the base metal. The electrodes are recommended for the manufacture of important nickel structures. There are 4 tables and 3 figures.

ASSOCIATIONS: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute) (Bagryanskiy, and Kuz'min); Berdichevskiy zavod "Progress" (Berdichev "Progress" Plant) (Pavlyuk)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

KHRENOV, Konstantin Konstantinovich; KUSHNEREV, Daniil Matveyevich. Prinimali uchastiye: YUZVENKO, Yu.A., kand.tekhn.nauk; BAGRYANSKIY, K.V., kand.tekhn.nauk, dotsent. NOVIK, A., red.; GORKAVENKO, L., tekhn.red.

[Ceramic fluxes for automatic welding and hard facing] Keramicheskie fliusy dlia avtomaticheskoi svarki i naplavki. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1961. 262 p. (MIRA 14:12)

1. Zhdanovskiy metallurgicheskiy institut (for Bagryanskiy).
(Flux (Metallurgy)) (Electric welding)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

BAGRYANSKIY, K.V., kand.tekhn.nauk; KUZ'MIN, G.S., inzh.; PAVLYUK, S.K., inzh.

New electrodes for the manual arc welding of nickel. Svar. proizv. no.4:22-23 Ap '61. (MIRA 14:3)

1. Zhdanovskiy metallurgicheskiy institut (for Kuz'min). 2. Berdichevskiy zavod "Progress" (for Pavlyuk).
(Nickel--Welding) (Electrodes)

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"APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000103020006-9

S/184/61/000/005/006/009
D041/D113

AUTHORS: Bagryanskiy, K.V., Candidate of Technical Sciences; Kuz'min, G.S., Yagodin, P.P. and Pavlyuk, S.K., Engineers.

TITLE: Electric arc welding of nickel.

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 5, 1961, 40-42

TEXT: The welding department of the Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute), in cooperation with the workers of the Zavod "Progress" ("Progress" Plant), has developed and introduced an automatic, semi-automatic and manual electric-arc welding method of НП-2 (NP-2) nickel permitting composite welds to be obtained. The production of the ЖН -1 (ZhN-1) ceramic flux proposed by the institute and of the Прогресс-50 (Progress-50) electrodes developed by the authors was started at the electrode shop of the "Progress" Plant. The article contains a detailed description of the above-mentioned methods used for welding the parts of a mixing device. The casing was made of NP-2 nickel 500 mm in diameter and 3,000 mm long with welded flanges and pipe junctions. The casing walls were 10 mm

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Electric arc ...

thick, and the pipe junctions 6 mm. The mixer consisted of a steel pipe with a 3 mm nickel coating. A ТС-17М (TS-17M) automatic welding machine the ZhN-1 flux, and an НП-2 (NP-2) electrode wire on the flux pad with direct current of additive polarity were used for welding. A ПС-500 (PS-500) transformer served as feed source, and the flux granulation was 1.5-2.0 mm. The circumferential seams were welded using a Т-22 (T-22) welding manipulator and a ТС-17М (TS-17M) tractor mounted on a special arrangement. The nickel pipe junctions were welded to the casing by a ПШ-5 (PSh-5) semi-automatic machine using NP-2 wire 2.5 mm in diameter. In this case, the flux granulation was 0.8-1.3 mm. The welds were examined and tested under a hydraulic pressure of 2 gage atmospheres. They were tight, with neither cracks nor gas or slag inclusions. Corrosion tests in a caustic soda solution were carried out at 500°C for 50 hours. Good results were obtained. It is concluded that the use of the above-mentioned methods for manufacturing nickel devices permitted high-quality weld joints to be obtained. There are 1 figure and 3 tables.

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1.2390 1573

26791
S/125/61/000/005/011/016
A161/A127

AUTHORS: Bagryanskiy, K. V., Kuz'min, G. S.

TITLE: ZhN-1 ceramic flux for the automatic and semiautomatic welding of nickel

PERIODICAL: Avtomaticheskaya svarka, no. 5, 1961, 79 - 85

TEXT: Information is given on welding techniques and the chemical composition of the ceramic ЖН-1 (ZhN-1) flux developed during 1956 - 1960 by the Department of Welding Practice of the Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute). It was empirically found that the nickel weld metal has to be alloyed with 0.5 ÷ 1.5% Si, 1.0 ÷ 2.0% Mn, 0.3 ÷ 0.6% Ti and 0.4 ÷ 0.8% Al. The approximate chemical composition of ZhN-1 flux is the following: 7 - 9% CaO, 14 - 16% Al_2O_3, 50 - 55% CaF_2, 18 - 20% SiO_2, 5 - 6% Na_2O, 4 - 5% Mn, 1.5 - 2.0% Ti, 5.5 - 6.5 % Al, ≯ 0.05% S, ≯ 0.05% P. The flux is intended for the automatic and semiautomatic arc welding of the standard nickel grades H-1 (N-1), H-2 (N-2) (per GOST 849-56) НП-1 (NP-1) and НП-2 (NP-2) (GOST 492-52). The electrode wire may be of same metal, or НМц-2,5 (NMts-2.5) (GOST 1049-41). The flux composition has to be recalculated to exclude metallic Mn in case of NMts-2.5 wire. The flux

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ZhN-1 ceramic flux for the automatic and...

gives a very stable arc despite a high content of fluorides and oxides. The weld metal produced with it is fully sound, the seams well shaped, the slag crust is easily removable. The information includes detailed technological recommendations concerning the bevelling of base metal edges, diameter of electrode wire to be used for different base metal thickness (from 5 to 12 mm), welding current, voltage, gap widths. A nomogram is given for the approximate selection of the welding current and voltage for different base metal thickness and wire diameters. The preparation of the flux is described. It is simple and easy to organize at electrode plants. Reference is made in this connection to publications on the production of ceramic fluxes [Ref. 7: K. K. Khrenov, L. M. Kushnerev, "Svarochnoye proizvodstvo", no. 9, 1957; Ref. 8: A. S. Chesnokov, "Svarochnoye proizvodstvo", no. 9, 1957]. Automatic hidden arc welding of nickel with ZhN-1 flux is now being used at the Moskovskiy zavod NIIKhIMMASh (Moscow NIIKhIMMASh Plant) and the "Progress" Plant in Berdichev. A vacuum ladle with 10 mm wall, welded of NP-2 nickel is shown in a photograph as an example of work produced with ZhN-1 flux. There are 5 figures, 6 tables and 8 Soviet-bloc references.

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute)

SUBMITTED: October 31, 1960

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BAGRYANSKIY, K.V., kand.tekhn.nauk; LAVRIK, P.F., inzh.;
KAL'YANOV, V.N., inzh.

Effect of repeated built-up welding of iron mill rolls on their wear resistance. Svar. proizv. no.8:15-17 Ag '61.
(MIRA 14:8)

1. Zhdanovskiy metallurgicheskiy institut.
(Rolls (Iron mills)--Maintenance and repair)

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A006/A101

AUTHORS: Bagryanskiy, K. V., Candidate of Technical Sciences, Kal'yanov, V. N., Engineer

TITLE: Investigating the phase composition of some multi-layer deposits

PERIODICAL: Svarochnoye proizvodstvo, no. 10, 1962, 9 - 12

TEXT: A theoretical analysis and experimental investigations were made of the connection between the phase and chemical composition in multi-layer welding under ceramic fluxes, alloying the built-up metal with C, Cr, Mn and Si. Processes of possible structural transformations predetermining the final phase composition of the metal are demonstrated by calculating the thermal welding cycle, using the values of linear energy q_u/v = 5,000 - 7,000 cal/cm, and pre-heating temperature $T_{pre.}$ = 330 ÷ 370°C. The theoretical concepts were checked by a series of welded deposits with chemical compositions varying in such a manner that continuously increasing total amounts of ferrite forming elements (Cr, Si, W, Ti) and austenizers (C, Mn) were obtained. The welds were deposites on 50 - 70 mm thick Ст.3 (St.3) and 55 X (55Kh) steel plates with Св-08 (Sv-08)

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